# W5YI

America's Oldest Ham Radio Newsletter

### REPORT

Up to the minute news from the world of amateur radio, personal computing and emerging electronics. While no guarantee is made, information is from sources we believe to be reliable.

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Vol. 21, Issue #9

\$1.50

PUBLISHED TWICE A MONTH

May 1, 1999

### "Non-Compliant" Amateur Satellite to Promote Swatch "Beat" Time

"Our idea came out of a very democratic intent: to open up the possibility to send messages into space to as many people as possible. The only way to achieve this goal was to use as many media as available, with the purpose of not excluding anybody. The messages that the beatnik satellite will send are not advertising and do not contain the brand name Swatch. They are messages that people, just like you, have left on the website in the hope that they could be sent into space. We see this as totally in tune with the spirit of freedom of communication and a democratic way of using radio as a means of communication. It is a great opportunity for Amateur Radio to gain an even wider audience." (Posted by Swatch to their Internet website.)

In a fast-breaking story overflowing with international intrigue and mystery, Amateur radio operators around the world are incensed by what appears to be the use of Amateur Radio spectrum to promote a new timekeeping method on the ham bands. The Swiss Swatch (watch) Company has contracted with Russia to broadcast messages about "Swatch Beat" time on the 2-meter ham band from space.

The story really begins in the fall of 1997 when an 8-inch diameter, 4 pound mini-Sputnik satellite was launched by hand from the Russian Mir space station. The purpose of Sputnik-40 (or RS-17; RS stands for Radio Sputnik) was to commemorate the 40<sup>th</sup> anniversary of the launch of the first artificial Earth satellite by the USSR in 1957 which marked the beginning of the Space Age.

The mini-Sputnik transmitted a "beep-beep-beep" beacon on 145.820 MHz – sounding just like the original Sputnik. Many people around the world were able to use their 2 meter ham receivers to pick up its transmissions. A Sputnik-40 website was set up at <a href="http://www.oceanes.fr/~fr5fc/angspoutnik.-html">http://www.oceanes.fr/~fr5fc/angspoutnik.-html</a> which is still operational today.

A year later Sputnik-41 (RS-18) - nearly identical to Sputnik-40 - was transported to Mir aboard a

Progress supply rocket and it too was launched by hand during a spacewalk by the Mir crew. The expected operational lifetime of the mini-Sputniks is short ...only about 30 days since they are powered by regular batteries and not solar cells.

Both RS-17 and RS-18 were part of a program of Sputnik-replica satellites initially built under a partnership of French radio club members at the Jules Reydellet College (FR5KJ) in St. Denis Reunion Island and Russian students at the Polytechnic Laboratory of Nalchik Kabardine Balkar Republique in the Russian Federation. AMSAT-France and the Russian Aeronautic Federation were the lead organizations overseeing the project. The Russian students (with help from engineers at RKK Energia) built the satellite structure, the French teenagers provided the electronic module, software and transmitter.

The RS-17 and 18 projects were financially sponsored by many large corporations including the national airline of Morocco (Royal Air Maroc), the French postal system (La Poste), a Brazilian satellite communication equipment company (Tecsat) ...and in Russia: RKK Energia, IMBP (Institute for Biological and Medical Problems), Inkombank (a

THE W5YI REPORT [Pub. No. 009-311] is published twice monthly by The W5YI Group, Inc., 2000 E. Randol Mill Road # 608-A, Arlington, TX 76011 SUBSCRIPTION RATE: (U.S., Canada and Mexico) One Year (24 issues) \$24.50 • Two Years: \$45.00 • Three Years: \$64.00. • Tel. 817/461-6443 Foreign Subscriptions via Air Mail: \$39.50 per year. (Payment may be made by Check, Money Order, VISA or MasterCard payable in U.S. funds.) Periodicals Postage paid at Arlington, TX. POSTMASTER: Send address changes to THE W5YI REPORT, P.O. Box 565101, Dallas, TX 75356

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bank) and others. Sponsorships were sold for 30,000 francs (about \$6000.) Many other sponsors contributed operational support including Air France and the Euro Space Center in Redu, Belgium. They received promotional recognition on the web site, but not on the amateur airwaves.

### Russia to build, launch Sputnik-99

Last December, AMSAT-Russia and the SCSC (Russian Space Flight Control Centre) in Moscow contacted AMSAT-France and asked them to manufacture another (200 milliWatt) RF electronic module similar to the ones made for RS-17 and 18 which would be incorporated in a new Sputnik-99 (RS-19.) A contract was entered into by Vladimir Solovyev of the SCSC and Gerard Auvray F6FAO (AMSAT France) to provide the spacecraft's electronics. The contract also specified that its messages had to comply with the international amateur rules and "No direct advertising can be made on the air."

Soon after the contract was signed, AMSAT-France learned during technical discussions that the SCSC had entered into a side commercial agreement with the Swatch company of Switzerland ...a very large and respected Swiss watch company. Swatch wanted the satellite to be named "Beatnik" and to be able to broadcast voice and HTML messages that would promote their new trademarked Internet "Beat" time. Swatch said that their company brand name would not be used on the air.

Swatch's website is indeed aimed at the general public. And one would assume that the 2-meter ham band broadcasts are directed to the same audience, not just ham radio operators. But Swatch specifically says on their website that the transmissions will "...allow radio-rads worldwide" to receive the voice and text messages. On another web page, Swatch adds, "...if you are not a radio-freak ...you will be able to follow the Beatnik and its messages live right here on the tracking section of the website." Swatch also says "...we don't know who is going to be listening out there...."

The next question is, who are the "radio-rads" and "radio-freaks" Swatch refers to. Swatch has not said they are ham operators and makes no mention at all of the Amateur Service. But they probably could make a case that is who they are referring to in order to keep it legal. My guess is that Swatch knows the rules and is walking the thin line between legal Amateur Radio transmissions and broadcasting commercial messages to the public. Again, the transmissions will not promote Swatch per se, but their new "Internet 'beat' time" standard.

AMSAT-France immedately objected to what they believed to be non-compliant commercial broadcasting over Amateur Radio. International telecommunications law specifies that the Amateur Service is for radio enthusiasts "...without pecuniary interest." Exactly what that

means is open to opinion and the subject of controversy.

In any event, the Russian Space Flight Control Centre said that they would assume all the responsibility for the "Beatnik" transmissions and if AMSAT-France did not complete the contract, they would sued for breach of contract. At this point, AMSAT-Russia is out of the picture and all dealings with AMSAT-France are being handled by the SCSC.

To avoid the lawsuit, AMSAT-France delivered the electronic modules and software. The EPROM program was filled with ten test messages pre-recorded by AMSAT France. In addition, the electronic module has the capability to transmit digital text in the form of HTML pages and telemetry indicating battery voltage and internal temperature. The Russian space center can also upload voice and data in ten message batches

SCSC, however, recorded and inserted their own ten voice messages for broadcast which AMSAT-France found unacceptable. They objected to the name of the satellite itself, "beatnik" which indicates the identity of the commercial sponsor. And the voice messages refer to the "beat" (for Internet "beat" time), a registered trade mark of Swatch...

Now AMSAT-France wants the amateur community to totally ignore "beatnik" and asks that no tracking information (keplerian elements) of the satellite be published in the AMSAT keps bulletins. And in keeping with that request, neither the AMSAT-NA web site at <a href="http://www.-amsat.org/">http://www.-amsat.org/</a> nor the English-version of AMSAT-France's web site at: <a href="http://www.ccr.jussieu.fr/physio/amsat-france/eindex1.htm">http://www.ccr.jussieu.fr/physio/amsat-france/eindex1.htm</a> makes any mention of RS-19, "Beatnik" or Sputnik-99 at all. The AMSAT-NA web site's webmaster is Paul Williamson, KB5MU – an AMSAT Vice President. (See his personal views below.)

Bernard Pidoux, F6BVP, AMSAT-France president adds that "...AMSAT-France is very sorry for this bad situation and hopes that you will understand that we did not want to achieve this." He said that they "...had a good relationship with the former team under the management of Viktor Kourilov, of the Astronautical Federation of Russia who was responsible of RS-17 and 18 projects and we did not realize the risks of contracting with a new one."

AMSAT-France has now discontinued all future involvement in the joint French/Russian educational project and is now developing a new educational amateur satellite project for French schools.

F6BVP apologized "...for the trouble this project could make to the amateur satellite community and hope that you will help us to limit its impact." AMSAT-Russia's President, Eugene Labutin, RA3APR, also apologized. He said the SCSC signed the Swatch contract under the name of AMSAT-R, but they were never so informed.

[Continued on page 9]

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Amateur Radio Station Statistics - By Month and License Class - With Percent of Total

Table	
Mar. 99         74,855         103,636         111,162         134,598         194,223         56,245         67           Feb. 99         74,689         103,532         111,176         134,348         192,958         56,700         67           Jan. 99         74,682         103,436         111,259         134,421         192,087         57,008         67           1998         74,662         103,592         111,513         194,287         57,617         67           Nov. 98         74,486         103,592         111,513         194,575         57,617         67           Nov. 98         74,496         103,526         111,498         134,719         190,510         58,034         67           Oct. 98         74,509         103,723         111,861         134,882         189,674         58,423         67           Sep. 98         74,366         103,775         111,989         135,003         188,840         58,705         67           Aug. 98         74,315         104,219         112,623         135,149         188,233         59,021         67           July 98         74,214         104,509         112,977         135,737         186,458         60,125	otal
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Aug. 98         74,318 11.0%         103,943 15.5%         112,255 16.7%         135,149 20.1%         188,233 28.0%         59,021 8.8%         67           July 98         74,315 104,219 112,623 135,737 186,458 59,448 110.0% 15.5% 16.7% 20.1% 27.8% 8.8%         3.8%         67           June 98         74,274 104,509 112,977 135,737 186,458 60,125 67         60,125 67         67           May 98         74,210 104,604 113,061 135,989 185,471 60,638 67         11.0% 15.5% 16.8% 20.2% 27.5% 9.0%         67           Apr. 98         74,192 104,927 113,603 136,460 184,328 61,594 67         61,594 67         67           Mar. 98         74,066 104,958 113,682 136,580 183,238 62,243 67         62,243 67           Feb. 98         74,067 105,501 114,341 137,214 181,666 63,239 11.0% 15.6% 16.9% 20.3% 26.9% 9.4% 10.9% 15.6% 17.0% 20.3% 26.9% 9.4% 10.9% 15.6% 17.0% 20.3% 26.9% 9.4% 10.9% 15.6% 17.0% 20.3% 26.5% 9.6% 10.9% 15.6% 17.0% 20.4% 26.6% 9.5% 10.9% 15.6% 17.0% 20.4% 26.6% 9.5% 10.9% 15.7% 17.0% 20.4% 26.6% 9.6% 10.9% 15.7% 17.0% 20.4% 26.6% 9.6% 10.9% 15.7% 17.0% 20.4% 26.5% 9.6% 10.9% 15.7% 17.0% 20.4% 26.5% 9.6% 10.9% 15.7% 17.0% 20.4% 26.3% 9.6% 10.9% 15.7% 17.1% 20.4% 26.3% 9.6% 9.6% 10.9% 15.7% 17.1% 20.4% 26.3% 9.6% 9.6% 10.9% 15.7% 17.1% 20.4% 26.2% 9.7% 10.9% 15.7% 17.1% 20.4% 26.2% 9.7% 17.1% 20.4% 26.2% 9.7% 10.9% 15.7% 17.1% 20.4% 26.2% 9.7% 10.9% 15.7% 17.1% 20.4% 26.2% 9.7% 10.9% 15.7% 17.1% 20.4% 26.2% 9.7% 10.9% 15.7% 17.1% 20.4% 26.2% 9.7% 10.9% 15.7% 17.1% 20.4% 26.2% 9.7% 10.9% 15.7% 17.1% 20.4% 26.2% 9.7% 10.9% 15.7% 17.1% 20.4% 26.2% 9.7% 10.9% 15.7% 17.1% 20.4% 26.2% 9.7% 10.9% 10.0% 10.0% 10.0% 10.0% 10.0% 10.0% 10.0% 10	2,678
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June 98         74,274 11.0%         104,509 112,977 16.8%         135,737 20.1%         186,458 27.7%         60,125 8.9%         67           May 98         74,210 104,604 113,061 15.5% 16.8% 20.2% 27.5% 9.0%         135,989 185,471 60,638 67         60,638 67         67           Apr. 98         74,192 104,927 113,603 136,460 184,328 61,594 11.0% 15.5% 16.8% 20.2% 27.3% 9.1%         67         67         67           Mar. 98         74,066 104,958 113,682 136,580 183,238 62,243 11.0% 15.6% 16.9% 20.2% 27.2% 9.2% 11.0% 15.6% 16.9% 20.2% 27.2% 9.2% 11.0% 15.6% 16.9% 20.3% 26.9% 9.4% 11.0% 15.6% 16.9% 20.3% 26.9% 9.4% 11.0% 15.6% 16.9% 20.3% 26.9% 9.4% 10.9% 15.6% 17.0% 20.3% 26.9% 9.4% 10.9% 15.6% 17.0% 20.3% 26.7% 9.4% 10.9% 15.6% 17.0% 20.3% 26.6% 9.5% 10.9% 15.6% 17.0% 20.4% 26.6% 9.5% 10.9% 15.6% 17.0% 20.4% 26.6% 9.5% 10.9% 15.7% 17.0% 20.4% 26.6% 9.6% 10.9% 15.7% 17.0% 20.4% 26.5% 9.6% 10.9% 15.7% 17.0% 20.4% 26.5% 9.6% 10.9% 15.7% 17.1% 20.4% 26.3% 9.6% 10.9% 15.7% 17.1% 20.4% 26.3% 9.6% 10.9% 15.7% 17.1% 20.4% 26.3% 9.6% 10.9% 15.7% 17.1% 20.4% 26.3% 9.6% 10.9% 15.7% 17.1% 20.4% 26.3% 9.6% 10.9% 15.7% 17.1% 20.4% 26.3% 9.6% 10.9% 15.7% 17.1% 20.4% 26.3% 9.6% 10.9% 15.7% 17.1% 20.4% 26.3% 9.6% 10.9% 15.7% 17.1% 20.4% 26.3% 9.6% 10.9% 15.7% 17.1% 20.4% 26.3% 9.6% 10.9% 15.7% 17.1% 20.4% 26.2% 9.7% 10.9% 15.7% 17.1% 20.4% 26.2% 9.7% 10.9% 15.7% 17.1% 20.4% 26.2% 9.7% 10.9% 15.7% 17.1% 20.4% 26.2% 9.7% 10.9% 15.7% 17.1% 20.4% 26.2% 9.7% 10.9% 15.7% 17.1% 20.4% 26.2% 9.7% 10.9% 15.7% 17.1% 20.4% 26.2% 9.7% 10.9% 15.7% 17.1% 20.4% 26.2% 9.7% 10.9% 15.7% 17.1% 20.4% 26.2% 9.7% 10.9% 15.7% 17.1% 20.4% 26.2% 9.7% 10.9% 15.7% 17.1% 20.4% 26.2% 9.7% 10.9% 15.7% 17.1% 20.4% 26.2% 9.7% 10.9% 10.6,668 116,079 138,900 176,960 65,909 67         67	3,402
May 98         74,210         104,604         113,061         135,989         185,471         60,638         67           Apr. 98         74,192         104,927         113,603         136,460         184,328         61,594         67           11.0%         15.5%         16.8%         20.2%         27.3%         9.1%         67           Mar. 98         74,066         104,958         113,682         136,580         183,238         62,243         67           11.0%         15.6%         16.9%         20.2%         27.2%         9.2%         67           Feb. 98         74,067         105,501         114,341         137,214         181,666         63,239         67           Jan. 98         74,043         105,795         114,798         137,616         180,665         63,892         67           1997         10.9%         15.6%         17.0%         20.3%         26.7%         9.4%           Nov. 97         73,949         105,835         114,877         137,688         179,988         64,169         67           10.9%         15.6%         17.0%         20.4%         26.6%         9.5%         67           Nov. 97         73,939         <	4,080
Apr. 98         74,192         104,927         113,603         136,460         184,328         61,594         67           Mar. 98         74,066         104,958         113,682         136,580         183,238         62,243         67           Feb. 98         74,067         105,501         114,341         137,214         181,666         63,239         67           Jan. 98         74,043         105,795         114,798         137,616         180,665         63,892         67           1997         Dec. 97         73,949         105,835         114,877         137,688         179,988         64,169         67           Nov. 97         73,939         106,123         115,280         138,064         179,240         64,868         67           Oct. 97         73,915         106,207         115,460         138,078         178,335         65,142         67           Sept. 97         73,794         106,304         115,639         138,339         177,547         65,372         67           Aug. 97         73,804         106,668         116,079         138,900         176,960         65,909         67	3,973
Mar. 98         74,066 104,958 113,682 16.9%         136,580 20.2%         183,238 27.2%         67           Feb. 98         74,067 105,501 114,341 137,214 181,666 63,239 11.0%         15.6% 16.9% 20.3% 26.9% 9.4% 11.0% 26.9% 9.4%         9.4% 26.9% 9.4% 26.9% 9.4%         9.4% 26.9% 9.4% 26.9% 9.4%         9.4% 26.9% 9.4% 26.7% 9.4%         67           Jan. 98         74,043 105,795 114,798 137,616 180,665 63,892 20.3% 26.7% 9.4%         10.9% 15.6% 17.0% 20.3% 26.7% 9.4%         67         10.9% 20.3% 26.7% 9.4%         67           1997         Dec. 97         73,949 105,835 114,877 137,688 179,988 64,169 26.6% 9.5% 10.9% 15.6% 17.0% 20.4% 26.6% 9.5% 10.9% 15.7% 17.0% 20.4% 26.5% 9.6% 10.9% 15.7% 17.0% 20.4% 26.5% 9.6% 10.9% 15.7% 17.0% 20.4% 26.5% 9.6% 9.6% 10.9% 15.7% 17.1% 20.4% 26.3% 9.6% 10.9% 15.7% 17.1% 20.4% 26.3% 9.6% 10.9% 15.7% 17.1% 20.4% 26.3% 9.6% 10.9% 15.7% 17.1% 20.4% 26.2% 9.7% 10.9% 10.0	5,104
Feb. 98         74,067 11.0% 15.6% 16.9% 16.9% 16.9% 20.3% 26.9% 9.4%         137,214 20.3% 26.9% 9.4% 9.4%         181,666 63,239 9.4% 9.4%         67           Jan. 98         74,043 105,795 114,798 137,616 180,665 63,892 10.9% 15.6% 17.0% 20.3% 26.7% 9.4%         180,665 63,892 16.7% 9.4%         67           1997         Dec. 97         73,949 105,835 114,877 137,688 179,988 64,169 16.6% 9.5% 15.6% 17.0% 20.4% 26.6% 9.5% 9.5%         10.9% 15.6% 17.0% 20.4% 26.6% 9.5% 9.6% 10.9% 15.7% 17.0% 20.4% 26.5% 9.6% 9.6%         67           Oct. 97         73,939 106,123 115,280 138,064 179,240 64,868 67 10.9% 15.7% 17.1% 20.4% 26.3% 9.6% 9.6% 9.6% 9.6%         67           Sept. 97         73,915 106,207 115,460 138,078 178,335 65,142 9.6% 9.6% 9.6% 9.6% 9.6% 9.6% 9.6% 9.6%	4,767
Jan. 98         74,043 105,795 114,798 137,616 20.3%         180,665 26.7%         63,892 9.4%         67           1997         Dec. 97         73,949 105,835 114,877 137,688 179,988 64,169 10.9% 15.6% 17.0% 20.4% 26.6% 9.5%         10.9% 15.6% 17.0% 20.4% 26.6% 9.5% 9.6% 10.9% 15.7% 17.0% 20.4% 26.5% 9.6%         67           Oct. 97         73,915 106,207 115,460 138,078 178,335 65,142 67 10.9% 15.7% 17.1% 20.4% 26.3% 9.6% 9.6% Sept. 97         106,304 115,639 138,339 177,547 65,372 10.9% 15.7% 17.1% 20.4% 26.2% 9.7% 15.7% 17.1% 20.4% 26.2% 9.7% 15.7% 17.1% 20.4% 26.2% 9.7% 15.7% 17.1% 188,900 176,960 65,909 67           Aug. 97         73,804         106,668 116,079 138,900 176,960 65,909 67	6,028
1997         Dec. 97         73,949         105,835         114,877         137,688         179,988         64,169         67           Nov. 97         73,939         106,123         115,280         138,064         179,240         64,868         67           Oct. 97         73,915         106,207         115,460         138,078         178,335         65,142         67           Sept. 97         73,794         106,304         115,639         138,339         177,547         65,372         67           Aug. 97         73,804         106,668         116,079         138,900         176,960         65,909         67	6,809
Dec. 97         73,949         105,835         114,877         137,688         179,988         64,169         67           Nov. 97         73,939         106,123         115,280         138,064         179,240         64,868         67           Oct. 97         73,915         106,207         115,460         138,078         178,335         65,142         67           Sept. 97         73,794         106,304         115,639         138,339         177,547         65,372         67           Aug. 97         73,804         106,668         116,079         138,900         176,960         65,909         67	
Nov. 97         10.9%         15.6%         17.0%         20.4%         26.6%         9.5%           Nov. 97         73,939         106,123         115,280         138,064         179,240         64,868         67           10.9%         15.7%         17.0%         20.4%         26.5%         9.6%         9.6%           Oct. 97         73,915         106,207         115,460         138,078         178,335         65,142         67           Sept. 97         73,794         106,304         115,639         138,339         177,547         65,372         67           Aug. 97         73,804         106,668         116,079         138,900         176,960         65,909         67	6,506
Oct. 97     10.9%     15.7%     17.0%     20.4%     26.5%     9.6%       Oct. 97     73,915     106,207     115,460     138,078     178,335     65,142     67       10.9%     15.7%     17.1%     20.4%     26.3%     9.6%       Sept. 97     73,794     106,304     115,639     138,339     177,547     65,372     67       Aug. 97     73,804     106,668     116,079     138,900     176,960     65,909     67	
Sept. 97     10.9%     15.7%     17.1%     20.4%     26.3%     9.6%       Sept. 97     73,794     106,304     115,639     138,339     177,547     65,372     67       10.9%     15.7%     17.1%     20.4%     26.2%     9.7%       Aug. 97     73,804     106,668     116,079     138,900     176,960     65,909     67	7,514
Sept. 97     73,794     106,304     115,639     138,339     177,547     65,372     67       10.9%     15.7%     17.1%     20.4%     26.2%     9.7%       Aug. 97     73,804     106,668     116,079     138,900     176,960     65,909     67	7,137
Aug. 97 73,804 106,668 116,079 138,900 176,960 65,909 67	6,995
	8,320
	8,733
June 97 73,737 107,024 116,629 139,608 174,924 66,551 67 10.9% 15.8% 17.2% 20.6% 25.8% 9.8%	8,473

The above figures represent the number of <u>currently licensed</u> amateur by month and line class. This is not the same as the FCC's Amateur Service database which includes amateurs whose license has expired but who still remain in the two year "grace" period. Note that nearly 60% of all amateurs now hold a slow (5 wpm) or no code ham ticket. The total number of Morse code proficient amateurs continues to decline ...as does the total number of amateurs. Even though the Technician Class continues to expand, it is not enough to offset the number of code proficient Amateurs that are deceased or leave the hobby.

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### FCC CONTINUES STEPPED UP HAM ENFORCEMENT

Oakland Amateur Radio operator, David E.
 Turner, K6RPO has been issued an Official Notice of Violation (NOV) "...for willfully causing interference to radio communications, not transmitting his assigned call sign and using an unauthorized emission."

The FCC said that they had received a complaint on the morning of March 25<sup>th</sup> regarding an unmodulated carrier on 147.660 MHZ ...the input frequency of the Mt. Diablo repeater. Using radio direction finding equipment, agents from the FCC's San Francisco Field Office located the signal later that afternoon radiating from an antenna at Turner's residence in Oakland.

Station inspections were attempted but no one was apparently home at the Turner residence. The FCC concluded that the station was being operated without a control operator present.

In a April 6th letter from FCC Regional Director Thomas Van Starven, Turner was notified that rule violations provide for monetary fines, suspension or revocation of operating authority or prosecution. He was ordered to respond to the allegations within ten days. "Any false statement made knowingly or willfully in reply to this NOV is punishable by fine or imprisonment..."

South Carolina amateur, Richard L. Whiten,
 WB2OTK has had his vanity call sign request for
 W2OTK placed on "hold" and has been ordered to respond to several reported violations within 30 days.

In an April 7<sup>th</sup> letter to Whiten, the FCC's Riley Hollingsworth said that the Commission had inspected his station "...pursuant to its enforcement responsibilities in the Amateur Radio Service and as a result of longstanding complaints regarding the operation of [Whiten's] station."

Hollingsworth said he was particularly concerned about "...numerous complaints regarding profanity, obscenity, broadcasting extreme racial slurs, deliberate interference and failure to identify" ...and complaints that Whiten had "...played automated digital recordings over the air for the purpose of harassment or deliberate interference."

Whiten had a history of ignoring notices from Official Observers. "Such notices are issued by volunteers working in accordance with an agreement between the Commission and the ARRL and in accordance with our statutory authority," Hollingsworth said.

"Although the Commission considers the Amateur Radio Service largely self-policing, the success of that regulatory approach depends upon an adherence to notices of possible improper operation by other licensed Amateurs who are recognized Official Observers. Failure to take the notices seriously and to not take corrective action where possible will not be tolerated by the Commission,

and such conduct will lead to monetary forfeiture or license revocation. The volunteer work of these Official Observers is a critical element of the Commission's enforcement program."

Hollingsworth said that the FCC had "...serious concerns about a linear amplifier [at the Whiten station] under construction that had the capability of operation substantially above the power limits set for the Amateur Service." FCC monitoring indicated that this unit had been used at least periodically.

Whiten was warned that "Obscene speech is not protected by the First Amendment and cannot be broadcast at any time. To be obscene, material must meet a three prong test, (1) an average person, applying contemporary community standards must find that the material, as a whole, appeals to the prurient interest, (2) the material must depict or describe, in a patently way, sexual conduct specifically defined by applicable law, and (3) the material taken as a whole, must lack serious literary, artistic, political or scientific value."

Whiten was ordered (1) to provide a complete circuit system description and circuit diagram of the linear amplifier under construction; (2) to respond to the allegations that he broadcast recordings over the air; (3) to list and forward all notices from Official Observers that he has received during the past five years along with the corrective action taken and his responses to those violations; and (4) whether he had identified his station by any other call sign other than WB2OTK or W2OTK.

Whiten's was ordered to have his response notarized and returned within 30 days. Furthermore, Hollingsworth said that he would be forwarding "...tape recordings made of your station on November 22 and 26, 1998 on 14.300 MHZ. You will be requested to provide a full explanation for those radio transmissions."

"This information will be used to determine what action to take in this matter, and what action to take regarding the renewal of your Amateur radio license."

• Riley Hollingsworth also sent a very sternly worded Warning Notice to New Jersey amateur, Joseph P. Santini, N2RGZ. The April 5th letter contended that "The Commission has evidence that you have been deliberately and maliciously interfering with VHF repeater operations of other licensed Amateurs in your area," and that Santini had engaged in harassment and threats against other licensees.

The FCC said that "such operation will no longer be tolerated" and that even another single incident "...will immediately result in a monetary fine being levied against you, ...in [license] revocation proceedings..." and "...seizure of your transmitting equipment..."

Hollingsworth also ordered Santini to retake his Technician Class examinations on or before May 10<sup>th</sup> under the supervision of the FCC in New York City.

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### **CUTTING EDGE TECHNOLOGY**

■ Communicating by radar could be the next big technology! The Time Domain Company of Huntsville, Alabama has developed a revolutionary new way to transmit digital wireless information without using radio waves.

Instead, it uses ultra wide band (UWB) pulses of radio energy transmitted at 10 million to 40 million pulses a second. Each pulse is a one or a zero. The technology could be used for any digital communications, telephone, video, or data ...or for wireless LANs (local area networking.)

The biggest advantage is that it doesn't use up valuable radio spectrum ...all of which is already allocated. Furthermore, UWB won't interfere with regular radio frequency transmissions. And like spread spectrum, the communications would be very secure. The military is interested because the wireless hand held communications would not only be undetectable, but could tell the user the location of all being communicated with.

Pulse devices would not only be small, but they could operate on one-thousandth the power of devices that use radio waves. USA Today said the UWB technology "...would be like the leap from vacuum tubes to the transistor or from oil lamps to light bulbs." UWB communications was invented by Larry Fullerton who got his start in amateur radio. He now has 10 U.S. patents for pulse technology and 32 abroad.

- Rechargeable batteries have a definite life span. Some of the newer computer-based battery testers print out decals that tell future servicers how much capacity and voltage the battery now offers, when it was last refurbished, and even a serial number. This data can be entered into a database for preventive maintenance purposes, allowing a technician to replace weak batteries ahead of schedule.
- For transmitter buildings in remote areas, there are new types of remote electronic monitoring equipment. Parameters such as output power, line voltage, tower lighting, SWR and environmental conditions can be transmitted digitally. Even switches connected to the access door can be connected, as well as microphones (through an analog channel) so the engineer can listen remotely for intruders.
- Where is the RFI coming from?

Pull plugs out of the wall. It takes a second or two for the output to collapse in the case of an amplifier, and if that amp is indeed the source of the trouble, the signal should be clean during that one moment when it's using "battery" power.

- For more precise handling of liquids in the laboratory, scientists are using the Digital Syringe. An LCD screen displays in microliters exactly how much liquid has been dispensed. Manufactured by Hamilton, the Digital Syringe is far more precise than ordinary liquid-handling methods.
- QuickTalk, made by Ritron, links together digital voice recording and monitoring technology. Anything you want to monitor remotely -- doors, fluid levels, perimeters, etc. -- can be observed with an analog sensor and will trigger a voice message that you yourself record into the system. Once an input signal is activated, the corresponding alarm message is transmitted on either a VHF or UHF channel. A security guard or field technician can be notified via hand-held radio immediately, in any language.
- Finally -- a "wall wart" power supply that doesn't waste space! Only one inch high, Phihong's PSA-05W plugs into any standard wall outlet and provides five volts DC at up to one amp. The low-profile packaging means the power supply won't fall out of the outlet from its own weight, and can even be used in a power strip without wasting a neighboring socket.
- Radio stations often make use of a device called a "noise gate." This device dramatically lowers the audio level to near or total silence when incoming audio falls below a certain threshold. A noise gate helps remove background noise during periods of no talking or no music.
- Why make square or rectangular wire? Because it allows you to wind more compact, more efficient inductors and motors. Round wire creates too many air gaps when you wind it around a core.

#### **EMERGING COMMUNICATIONS**

■ PBS temporarily lost one of its main satellites, GE3, on March 12th when it suddenly lost positioning control. PBS quickly switched to the transponders on another satellite, GE1, until they were able to coerce GE3 to behave itself again within a few hours.

- As of this writing, there are at least 50 TV stations broadcasting High-Definition TV in the United States.
- The next generation of TV logo insertion is here. We've all seen those little icons that TV stations and networks place in the lower right corner of the screen. KHOU-DT, a HDTV CBS affiliate in Houston, has been running their logo and callsign vertically along the left and right sides of the screen. This is most effective when viewing a standard 43 image on a 169 screen, and lets viewers concentrate on the central image.
- Geosynchronous satellites are so high above the earth that the typical path loss between a "bird" and a ground station in the C band approaches 200 dB. That means you need a high-gain antenna to pick the signal out of the noise. Surprisingly, precipitation does not substantially affect the C band; but it does affect frequencies from the Ku band and up. During heavy rain, it's not unusual for a ground station to suffer as much as a 10 dB loss of signal.
- Although science-fiction writer Arthur C. Clarke postulated geosynchronous-orbit satellites in the late 1940's, getting a satellite into an orbit that high proved so difficult that it wasn't accomplished until February of 1963 -- several years after Sputnik 1. The first geosynchronous satellite was Syncom 1, launched by Hughes Aircraft. It made it into orbit, but never worked properly.
- Want to plug in your HT on the International Space Station? Better make sure it can handle 120 VDC. American space vehicles have used 28 VDC power for decades, but the ISS will make use of the higher distribution voltage in order to utilize smaller cables with less weight.

#### **COMPUTER INFO**

■ A New Jersey man has been arrested and charged with originating the Melissa e-mail virus. David L. Smith, 30, of Aberdeen, NJ – a computer programmer – wrote the virus in his apartment and named it after a topless dancer from Florida where he used to live. He faces several charges which carry a maximum penalty of 40 years in prison and a \$480,000 fine. The virus was uploaded to a newsgroup from a stolen America Online

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account.

- The DriveDefender, by Promise Technology, promises to protect computer data against the crash of a drive. It does this by pairing two drives together through a PCI card. Should one drive suddenly fail, DriveDefender will sense it and store your data on the other. What's more, you don't have to shut off the system to replace the failed drive.
- The Internet in your pocket! -- The Samsung Duette and Mitsubishi Mobile-Access 120 "smart" CDPD (Cellular Digital Packet Data) cell phones let you access the Internet, receive e-mail, news, weather, check stock prices, receive updates and even make trades. Both have a \$299 list price.

You also need to subscribe to a CDPD service such as AT&T's "PocketNet." (\$29.95 a month.) Standard cell phones will not work; a CDPD phone is required.

■ Experts say that the average 1.44 MB floppy disk lasts for only about 15 years. A CD-ROM disc, however, should keep its data for at least 50 years and perhaps as long as 100 years. Computer librarians say that optical-based media stores data better in the long run than magnetic media.

### INTERNET NEWS

It is starting to look like the digital network of the future will be an Internet portal site. ABC is pushing its "Go!" gateway, NBC has its "Snap!" CBS is lining up individual gateway sites, such as CBS Sportsline, ... CBS MarketWatch.

All major media companies are scrambling for a foothold in cyberspace. Not to be outdone, cable operators have purchased the @Home network -- which offers high speed Internet access and programming using cable modems.

The big portal sites are America Online, Excite, HotBot and Yahoo! Look for heavy advertising of network Web sites over traditional media.

Yahoo! has agreed to buy Broadcast.com for \$5.7 billion. It gives Yahoo! a way to offer "rich media" – streaming audio and video.

Nielsen Media, the ratings people, has just rolled out a new Internet measurement service. The service, called "Nielsen/NetRatings" allows advertisers and ad agencies to track the performance of

Web ads. The service works by sampling the Internet viewing habits of 9,000 participants who are recruited through random dialing.

Something new is an upcoming portal site that offers gambling! Bingocom – billed as "The future home of million dollar jackpots" – is set to launch on April 30th. It combines the world's most socially acceptable form of wagering, Bingo, with the hottest communications medium, the Internet. This is without a doubt the most ambitious gambling site opening ever.

Bingo-com wants to take advantage of the over \$70 million wagered last year on "socially accepted" land-based bingo. Toward that end, a portion of the revenue goes to a charity selected by the player.

Online gambling is now a \$500 million industry worldwide. It is expected to blossom to \$10 billion within three years. In conventional gambling, 3-5% of the take usually goes to the house. In Bingo, the operator gets approximately 35 cents of every dollar!

In addition to offering Bingo games with cash prizes, the site will be a destination portal site that will offer free e-mail, web pages, news, music, downloads, "hot links", chat rooms, sports, investing, entertainment and lifestyle information.

The site has already signed up more than 25,000 "pre-launch" members. The site administrative headquarters is based in Vancouver, BC (Canada,) its gambling operation on the Caribbean Island of Antigua – beyond the reach of U.S. regulators and tax collectors. Their income will come from banner advertising, licensing, merchandising and "wagering revenues" obtained from Bingo games. Site is located at: <a href="http://www.bingo.com">http://www.bingo.com</a>

The Bingo.com domain name alone had a multi-million price tag! Stratford Internet Technologies, Inc., paid \$200,000 (in cash up front) to obtain the "Bingo.com" address, plus 500,000 common shares of the company (worth \$65 million at the current \$13 a share), and an on-going quarterly payment of 4% of gross revenue of the company with a minimum guarantee of \$1,100,000!

[By the way, Websquatters.com is currently offering the "bingo-bingo.com" domain name for \$8,000.00. Their highest priced address: (casinoresorts, com, net or org) carries a \$500,000 price tag ...and all you get is the name that originally cost less than \$100.]

Make no mistake about it. Bingo-com is planned to be a very high-powered oper-

ation. Their prospectus said that if 1,000 people average 15 games per hour with 5 (\$1.00) cards per person, the monthly revenue would be more than \$50 million with an annual profit exceeding \$200 million. Bingo.com's revenue would exceed \$6.5 billion (that's billion with a "B") if the average number of players online averages 10,000.

Bingo.com publicly trades on the NASDAQ under the symbol: BIGG. Multi-million bucks are being spent on developing and promoting the site and you are certain to be hearing more about this one! Bingo-com will be developed under the slogan, "Wherever you are...wherever you want to go... Bingo! You're there."

Frank Gigliotti, who for 15 years was with CBS Records, one of the world's largest entertainment corporations has been retained to handle the marketing. He was honored and presented with the prestigious "Promotion Manager of the Year" award.

But Bingo-com will have competition. Dion Entertainment <a href="http://www.dion-bingo.com">http://www.dion-bingo.com</a> of Canada is in the process of buying the "bingo-channel.com" domain name to launch a new site. And "Bingo Blast" - hosted by the Mohawk Indian Nation in New York - will be opening in May. The "dot.com Entertainment Group" <a href="http://www.dceg.com/>has recently purchased">http://www.dceg.com/>has recently purchased</a> "Cyber-Bingo." And Bingo-Mania <a href="http://www.bingomania.net/">http://www.bingomania.net/</a> has just switched from a free "trial" game to a cash prize operation.

And here is another new Internet "wrinkle" ... a switch on free Internet access in exchange for allowing advertising. Internet users using the Windows operating system can now get paid for surfing the Internet.

Membership driven AllAdvantage.com will pay Web surfers 50 cents an hour for their time online in exchange for allowing a small advertising bar at the bottom of your screen. The advertising "viewbar" opens whenever users are online. Surfers can make up to \$20.00 per month ...plus another 5 cents per hour when people you have referred to the service are online.

To participate, you sign up at < http://www.alladvantage.com> and receive a registration number which allows you to download the Viewbar. You can "clock off" the Viewbar with a single click at any time. WebTV and Mac Viewbar versions of the software will be ready this summer.

AllAdvantage.com, based in Palo Alto, Calif. said they will not sell, rent or exchange a customer's personal information

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to third parties ...nor will members receive "junk" (spam) e-mail.

■ Many Internet sites are being ripped off by people who use fraudulent credit card numbers. It is apparently easy to obtain someone else's credit card number ...such as from a dumpster, curbside trash bag or a restaurant receipt. Furthermore, stolen credit card numbers are frequently posted to Internet chat sites and bulletin boards.

There are even software programs that can generate valid credit card numbers which comply with the Mod-10 algorithm ... a check-sum digit that appears at the end of a credit card number. Crooks even have been known to continually enter credit card numbers until they hit on a number that is accepted. (Reported by Wired News)

Regular users of the Internet know that many image files have the .JPG suffix on their filenames. This is an abbreviation of JPEG, a protocol that was designed to compress photographic images. A compressed file means it takes up less storage space, and therefore takes less time to download. But photographs, for the most part, are made up of subtle changes of tone and color; ordinary documents are full of sharp transitions from white background to black text and back again, and are therefore not the best images for JPEG to compress. GIF compression is better if there are no gradual color changes.

#### **WASHINGTON WHISPERS**

- At presstime, Senator John McCain (R-Ariz.) was in the process of introducing legislation that prevents the Federal Communications Commission from regulating or taxing the Internet. The bill is intended to block any FCC action that might make Internet service more costly. McCain will also hold hearings in an effort to learn what the Internet will look like once broadband (high speed) access arrives.
- It used to be that you monitored the shortwave radio band if you wanted to hear all sides of a dispute. Now you can do it better by surfing the Internet.

Thanks to Sheldon Harvey, VE2SHW, <ve2shw@rac.ca>, here is a list of Internet links through which you can monitor the crisis in the Balkans. These sites are certainly not all pro-NATO or pro-USA.

NATO OFFICIAL HOME PAGE <a href="http://www.nato.int/">http://www.nato.int/</a>

KOSOVO CRISIS CENTRE

<http://www.alb-net.com/index.htm>
THE KOSOVO AND METOHIJA PAGE
<http://www.kosovo.com>
FEDERAL REPUBLIC OF YUGOSLAVIA

OFFICIAL WEBSITE

<http://www.gov.yu/>

ALBANIAN TERRORISM IN KOSOVA AND METOHIJA

<a href="http://www.gov.yu/terrorism">http://www.gov.yu/terrorism</a>

JUST THE NEWS <a href="http://listen.to/TheNews">http://listen.to/TheNews</a>>

KOSOVO NEWS LINKS

<a href="http://members.tripod.com/~pagoo2/N">http://members.tripod.com/~pagoo2/N</a>

ews1/news3.html>
KOSOVA PRESS

<http://www.kosovapress.com>
SERBIA NOW! ON LINE

<a href="http://www.sn-ol.com">http://www.sn-ol.com</a> RADIO YUGOSLAVIA

<a href="http://www.beograd.com/radioyu">
RADIO B92 Independent Belgrade radio
http://moumee.calstatela.edu/~sii/odrazb/latest.html></a>

VOICE OF RUSSIA'S KOSOVO PAGE <a href="http://www.vor.ru/Kosovo/index.html">http://www.vor.ru/Kosovo/index.html">http://www.rnw.nl/Kosovo/index.html</a> <a href="http://www.rnw.nl/realradio/features/-html/kosovo.html">http://www.rnw.nl/realradio/features/-html/kosovo.html">http://www.rnw.nl/realradio/features/-html/kosovo.html</a>

RADIO NEDERLANDS' KOSOVO LINKS PAGE

<a href="http://www.rnw.nl/foreign/eng/html/kosovolinks2010.html">http://www.rnw.nl/foreign/eng/html/kosovolinks2010.html</a>
MONITORING THE CRISIS IN THE BAL-

KANS <a href="http://www.grove-ent.com/balkanscrisis.-">http://www.grove-ent.com/balkanscrisis.-</a>

html > BRITISH MINISTRY OF DEFENSE

<http://www.mod.uk/>
U.S. DEPARTMENT OF DEFENSE LINK
<http://www.defenselink.mil>

YUGOSLAV FEDERAL MINISTRY OF FOREIGN AFFAIRS

<a href="http://www.mfa.gov.yu">

SERBIAN MINISTRY OF INFORMATION
- SERBIAINFO

<a href="http://www.serbia-info.com">http://www.serbia-info.com</a> UNITED NATIONS COMMISSIONER FOR REFUGEES

<http://www.unhcr.ch/>
HUMAN RIGHTS WATCH
<http://www.hrw.org/>

INSTITUTE FOR WAR AND PEACE REPORTING

<http://www.iwpr.net>

■ "Rock & a Hard Place Dept." –
Radio and TV stations find themselves in a quandary. The Emergency Alert System (EAS), a digital data network that links stations together in times of severe weather or other emergencies, has been in place for a

couple of years.

It replaced the tone-based Emergency Broadcast System (EBS.) But the company that holds patent on EAS, Quad Dimension, wants royalty payments from all users.

Stations don't want to pay hundreds of dollars annually for a system they thought they had already bought, and many have therefore ignored the legal notices. The FCC requires these stations to use EAS, and they'll be heavily fined if they don't. Either way, station owners appear to lose money. The Society of Broadcast Engineers is working on an amicable solution.

### AMATEUR RADIO

■ An unemployed ham operator (and former NYNEX employee), Keith Knipschild, N2NJS of Kings Park, New York was arrested by the U.S. Secret Service and Nassau County officials at his home and charged with intercepting mobile police data information and posting it to his web site.

"Police use mobile data terminals to check for outstanding warrants, review driving records and to send emergency information they might not want to broadcast across police scanners, such as details of an ongoing surveillance or a planned search," Newsday said.

Federal investigators said an "illegal device" was used to intercept the police data communications. Knipschild is a Technician Class amateur radio operator.

The <a href="http://www.knip.com">http://www.knip.com</a> web site reportedly had 93 pages of police transmissions intercepted over the past month which included criminal histories and warrants, motor-vehicle checks, medical information about victims, and witness statements.

The FSK decoder equipment N2NJS apparently used was sold to him by radio enthusiasts – and we assume, dealers – Bill and Cindy Cheek of San Diego, California. Neither are licensed Amateur Radio operators.

Agent Denise Gibson with the U.S. Secret Service New York office said the arrest warrant was based on an affidavit charging the Cheeks had violated the law by marketing a device on the Internet, specifically a digital data decoder. The device can be used to surreptitiously and illegally intercept police MDT (mobile data terminal) transmissions which are broadcast by law enforcement agencies and emergency service organizations.

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Mobile data terminals send and receive password-protected information over radio frequencies, which are encoded into a digital or binary format, one that is not available to the public. The law forbids the public from decoding encrypted communications if they are not the intended recipient.

The Federal arrest warrant was issued by the Eastern District of New York in Brooklyn. The Secret Service said one of its undercover agents purchased a device from the Cheeks, who shipped it to New York.

A form letter from Bill Cheek was posted to the Web's scanner newsgroup concerning their arrest since "...so much email has poured in that I can't possibly answer it all."

He said on Wednesday, March 31st, about 7:00 a.m. he and his wife while "...enjoying our first cup of coffee of the day..." were arrested and armed agents from the U.S. Secret Service, FBI, Customs, Postal Inspectors and local police raided their home.

Both were handcuffed in "...a typical TV style search and seizure situation." Their home was searched and both were hauled off to jail. They were released on bail late that night only to find that their computers and business records were gone.

Bill Cheek said the product in question was a simple "data slicer" that (and he named two well known U.S.-based ham radio manufacturers) "...and dozens of others sell..." (Reported on April 2nd by Newsday, Long Island NY and others.)

**THOTY nominations close on May 30, 1999.** The Newsline *Young Ham of the Year* Award is open to any young continental United States radio amateur under
the age of eighteen. Those nominated will be judged based on their overall involvement in Amateur Radio and their contributions to society through Amateur Radio.

Thanks to Yaesu USA Corporation, this years winner will receive an expense paid trip to the Huntsville Hamfest this August where he or she will receive the award. The winner also gets to spend a week at Spacecamp Huntsville as the guest of CQ Magazine.

A nominating form is required and is available free of charge at the Newsline web site at <a href="http://www.arnewsline.org">http://www.arnewsline.org</a> Forms are also available from Newsline YHOTY Award, 28197 Robin Avenue, Santa Clarita California. 91350. (Include an SASE.) Thanks, WAGITF

On April 9th, the FCC released a

Public Notice entitled, Amateur Service Reciprocal Operation. The document said that radioamateurs from countries with which the United States has made reciprocal operating arrangements are authorized by the new Section § 97.107 (released October 21, 1998) to be the control operator of an amateur station transmitting from a place where the Amateur Radio Service is regulated by the Federal Communications Commission.

Sec. 97.107 states that "The FCC will issue public announcements listing the countries with which the United States has such an arrangements." Sec. 91.119 (Station Identification) was revised to read "When the station is transmitting under the authority of § 97.107...,an indicator consisting of the appropriate letter-numeral designating the station location must be included before the call sign issued to the station by the country granting the license." This indicator must be separated from the assigned call sign by the slant mark (/) or any suitable word that denotes the slant mark. (Amateurs from Canada must include the indicator after the call sign.)

It should be noted that the FCC no longer issues reciprocal permits for alien amateur licensee. As a result, no additional FCC-issued authorization is required for reciprocal operating authority.

The countries with which arrangements are in effect are:

Antigua and Barbuda, Argentina, Australia, Austria, The Bahamas, Barbados, Belgium, Belize, Bolivia, Bosnia-Herzegovina, Botswana, Brazil, Chile, Colombia, Costa Rica, Croatia, Cyprus, Denmark (Including Greenland), Dominica, Dominican Republic, Ecuador, El Salvador, Federated States of Micronesia, Fiji, Finland, France [including French Guiana, French Polynesia (Gambier, Marquesas, Society, and Tubuai Islands and Tuamotu Archipelago), Guadeloupe, Ile Amsterdam, Ile Saint-Paul, Iles Crozet, Iles Kerguelen, Martinique, New Caledonia, Reunion, Saint Pierre and Miquelon, and Wallis and Futuna Islands], Federal Republic of Germany, Greece, Grenada, Guatemala, Guyana, Haiti, Honduras, Iceland, India, Indonesia, Republic of Ireland, Israel, Italy, Jamaica, Japan, Jordan, Kiribati, Kuwait, Liberia, Luxembourg, Macedonia, Republic of the Marshall Islands, Mexico, Monaco, Netherlands, Netherlands Antilles, New Zealand, Nicaragua, Norway, Panama, Paraguay, Papua New Guinea, Peru, Philippines, Portugal, Seychelles, Sierra Leone, Solomon Islands, Republic of South Africa, Spain, St. Lucia, St. Vincent and the Grenadines, Surinam, Sweden, Switzerland, Thailand, Trinidad and Tobago, Turkey, Tuvalu, United Kingdom [including Bermuda, British Virgin Islands, Cayman Islands, Channel Islands (including Guernsey and Jersey), Falkland Islands (including South Georgia Islands and South Sandwich Islands), Great Britain, Gibraltar, Isle of Man, Montserrat,

Northern Ireland, Saint Helena (including Ascension Island, Gough Island, and Tristan Da Cunha Island), and Turks and Caicos Islands, Uruguay, and Venezuela.

Reciprocal operating authority is valid until the expiration date on the alien's amateur service license. Reciprocal operation in a place where the Amateur Radio Service is regulated by the FCC must comply with Part 97 of the FCC's Rules and the International Telecommunication Union Radio Regulations. Operator privileges are those authorized by the alien's government, but do not exceed those of the FCC Amateur Extra Class operator.

No United States citizen, regardless of any other citizenship also held, is eligible for reciprocal operating authority. The alien must be a citizen of the country that granted his or her amateur service license. Amateur radio operators who will be in the United States for extended periods of time are encouraged to obtain an FCC-issued amateur service license grant. Any person, except a representative of a foreign government, may apply for an FCC amateur service license upon passing the qualifying examinations. An alien holding an FCC-issued amateur service license grant, however, is not eligible for reciprocal operating authority. A FCC-issued license grant, moreover, supersedes reciprocal operating authority.

The FCC does not have or provide information on the specific requirements for reciprocal operation in foreign countries. FCC-licensed amateur operators should make their arrangements with the appropriate governmental agency in the foreign country.

Texas amateurs are concerned about a Texas bill would bar use of cellular phones while driving. The bill introduced by Rep. Paul Moreno, D-El Paso, would compel drivers to keep their hands on the wheel and communicate when they are not driving down the highway. So far, the bill has drawn little notice, and no hearings have been scheduled. Spurred by a study published in the New England Journal of Medicine, 12 states are considering legislation similar to Moreno's proposal. The 1997 study showed that drivers are four times more likely to be involved in an accident when they're using a cellular phone - a risk roughly equivalent to having an accident while driving with a blood-alcohol level above the legal limit. The proposed legislation would allow drivers to use hands-free phones, but the study in the journal suggests that hands-free units are no safer than hand-held phones.

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[Swatch "Beat" Time, Continued from page 2]

The Swatch Internet time promotion...

Swatch has been seeking "beat" related voice and text messages on its website (see: <a href="http://www.swatch.-com/beatnik/frameset.html">http://www.swatch.-com/beatnik/frameset.html</a>) for its "Beatnik Mission." So far they have collected over 5200 messages – both text – up to 130 characters long – and .wav (voice) files. The only requirement is that the message contain the word "beat" Swatch will select some of these for broadcast "to a worldwide audience" between 145.800 and 146 MHz. Interestingly, Swatch has already enabled their own satellite tracking program at the above Internet address which does not rely on keplerian elements.

"Beatnik" is already on board Mir. "SpaceNews" reported that the "beatnik" will be on its way to Mir "...with the next Progress launch currently scheduled for April 2, 1999. (It arrived at the Mir Space Station on April 5th.) No word as to the date the satellite will be hand launched from Mir is known at this time. The latest mini-Sputnik will transmit stored voice messages in many different languages on a frequency of 145.815 MHz (+/- Doppler) with 200 milliWatts of power. Up to ten messages will be transmitted by the tiny, battery powered satellite. Each message will be 7 seconds long and include a 7 second pause. There is the ability to change the message every 24 hours." The launch of "Beatnik" can be expected at any time. The Swatch Web site said that the launch date will be April 16th, too late for our deadline.

#### Just what is "Internet Beat Time?"

Swatch is supporting a new timekeeping standard that they call the "Swatch 'beat' ...a completely new global concept of time." Internet "beat" time divides the day into 1000 parts or "beats." Based on a 24 hour day, a "Swatch beat" equals one minute, 26.4 seconds. Like GMT (Greenwich Mean Time), "Swatch beat" time is not based on time zones or geographical borders. But unlike GMT — the universal time which starts at the prime meridian just past midnight in Greenwich, England — "beat time" is based on a new meridian that passes through Biel, Switzerland where Swatch has its headquarters.

The new BMT (Biel Mean Time) meridian was inaugurated on October 28, 1998 in the presence of supporter Nicholas Negroponte, founder and director of the Massachusetts Institute of Technology's Media Laboratory ...and serves as the universal reference for time on the Internet. Swatch even erected the new BMT meridian marker on the street outside their international headquarters.

A day in Internet Time begins begins at midnight BMT – @000 Swatch beats Central European Wintertime. "@500 Swatch Beats" (which is notated with the "at sign" – @ – plus a number between zero and 999) would thus be 12 noon in Biel, Switzerland. And like Greenwich

Mean Time (GMT) and UTC (Universal Coordinated Time), BMT and "@500 Beat" would be the exact same time at everyplace in the world. (GMT is really microscopically different from UTC which is based on the cycles of atomic clocks.)

But is the concept of dividing the day into one thousand parts the only new time standard? Actually it is not. Swatch is just doing a better job of promoting it. Check out: <a href="http://www.universal-time.org/">http://www.universal-time.org/</a>

The Universal Time Organization is supporting a metric Co-ordinated Universal Time which they call UDT ...for Universal Date & Time. It can not be repeated or mistaken for any other period of time. For example: The date and time are displayed in the following format:

YEAR	DAY	TIME	FRACTION OF TIME
1999	121	500	125

UDT is based on the day of the year - 121 is the 121st day of 1999 (or May 1st.) The time (500) is exactly the same as Swatch "beat" time - except it is based on GMT rather than BMT. The fraction represents 125/-1000s of the time base (which is one-thousandth of a 24 hours day.) A Swatch "beat" is also 1,000th of a day, the system, however, does not have any beat subdivisions.

UDT can be displayed as 1999/121/500/125 or 1999121500125 or 1999 121 500 125 or in any other format where it can be interpreted as UDT. The example above represents a moment in time, which is smaller than nine hundredths of a second. It is unique and would not be repeated for another 10,000 years.

#### The AMSAT-BB Internet listserv has been buzzing!

Many amateurs are furious and are supporting a boycott of Swatch products. (See: <a href="http://wmbc.umbc.~edu/rob/swatch-protest/">http://wmbc.umbc.~edu/rob/swatch-protest/</a> Others are urging restraint. The ARRL and IARU - while opposed to the commercialization of ham radio - have not been as vocal in opposing the "Beatnik Mission."

AMSAT Vice President Paul Williamson, KB5MU posted the following message to the AMSAT bulletin board:

"Swatch sponsorship all bad? Is it really so terrible that Swatch is sponsoring an amateur radio satellite? We need innovative ways to pay for satellites, and direct commercial sponsorship is one we haven't used before (to my knowledge).

"Now, I certainly agree that Swatch appears to be stepping over the line, by selecting messages that contain the keyword 'beat' from their advertising campaign. But really, that's not very far over the line. They don't appear to be transmitting any direct advertisements mentioning the company name or their products.

"There are other aspects of the program that I find somewhat distasteful. Naming the satellite and claiming credit for it, based on a solely financial contribution, for instance – but we

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shouldn't get too upset about that, since there is precedent within our own AMSAT-NA spacecraft programs.

"Their apparent lack of respect for the Amateur Radio and Amateur Satellite Services is distressing, but we should be used to it by now, and in any case the attitude alone doesn't justify action. It's a cultural thing anyway, and we should face the fact that most of us are not part of their target audience.

"My opinion is that we should take the position of inviting Swatch to be a better citizen, rather than going out of our way to vilify them. We would have a better chance of changing their plans with such a moderate approach than with aggressive boycotts and such. This is doubly true, since it seems quite clear to me that we don't have the numbers or the influence to succeed (or even be noticed) with such a power play.

"But more important, by using our least friendly tactics right away, we would create an environment that seems quite hostile to commercial sponsorships. This could close the door on important opportunities for future satellite projects. Please note that I am stating my own personal opinion here, and not speaking for anybody else (including AMSAT).

#### Here is another posting from an AMSAT official:

"Exploring corporate underwriting for the future. Whoa, wait a minute! I've looked at the web site. I've thought about the prospects. At best, I can see how you might find it distasteful, from a satellite op/ham operator point of view. However, I see nothing illegal, or for that matter wrong with Swatch sponsoring a satellite.

"Think about how much GOOD could come from such an alliance. As long as the rules are followed, I see nothing wrong with commercial money helping to sponsor amateur satellite projects. If Boeing hoists an amateur satellite into orbit, will you boycott them?

"Think through this now. How bad could the messages really be? 'Launch a satellite, and the entire world will beat a swatch to your door.' From what I've read, the only qualifier they have for their messages is it has to have the word 'beat' in the message. So? If I'm talking on FO-20, and I use the word Motorola, am I guilty of breaking the rules? I don't think so....

"If this process helps introduce young people to the ranks of amateur radio, and amateur satellites, how can you NOT be in favor? Think of the potential. Here is a large multinational company putting out the word, telling the world to seek out radio operators to listen to a message from space! Use the opportunity to take your HT to the mall and gather a small crowd of young people to listen to a signal from space. They'll probably already know about it, and will be thrilled by the opportunity!

"The last time FO-29 was in digitalker mode, I introduced several people to the thrill of receiving a signal from space on their own radio. Two are now users of AO-27. After posting a FAQ on this server explaining how to work the digitalker, I received dozens of emails from all over the world. Many were grateful to be handed the tools to have their own space experience. 'Easy' experiences like these have a positive impact on our hobby.

"Sometimes we ham operators get up in arms over the silliest things. If you send more hate mail to Swatch for the world to see, I guarantee you it will be we satellite operators

wearing the black eye. Send letters of encouragement, and reassert our ranks as the innovators we are. Peaceful, kind, supportive words will win more of our sophisticated youth over to our ranks.

"My mother used to tell me you catch more flies with honey than you do with vinegar. Please temper your responses and not make fools of the amateur satellite community." – 73, Mike in Fort Myers (Mike Gilchrist, KF4FDJ is an AMSAT Coordinator in Florida.)

#### And still another from a member of TAPR's Board

This AMSAT Bulletin Board post is from Steven R. Bible, N7HPR.

"Swatch sponsorship all bad? I would like to add to Paul's very well written missive. These are my personal opinions and not those of AMSAT or TAPR.

"Judging from the postings made on the Swatch Beatnik web site, Amateur Radio operators are going to cause more harm than good to the Amateur Service. Instead of informing Swatch as to what the International rules are, Hams are blasting with profanity. Now, what are young people all over the world going to think about this hobby we call Amateur Radio?

How do you know that Swatch doesn't know what the International Rules are? There is nothing on the Beatnik web site that pertains to the spacecraft transmitting any commercial. Yes, it is a commercial company collecting voice recordings to transmit. And how is this different than a non-company collecting recordings from school children? The spacecraft is legal as long as it is '...with a personal aim and without pecuniary interest. (RR 53)'

"This satellite, if done properly and with assistance of the Amateur Satellite community, can be a BIG boost to Amateur Radio all around the world. If you want to blast Swatch with profanity then you are lowering the Amateur Service to the lowest depths from which we will never recover.

"If you choose to post a message to Swatch, then it should be of a supportive nature with the caveat that the company comply with International Rules and Regulations. And that we'd be glad to help make the satellite a success to introduce young people around the world to Amateur Radio.

"Get back to your roots guys and gals. What got you interested in Ham Radio? The times are different. How do you think youngsters can be interested in Ham Radio today? This is a great opportunity, if done right! 73, Steve, N7HPR – n7hpr@tapr.org, n7hpr@amsat.org, (Steve sits on TAPR's Board of Directors. The Tucson Amateur Packet Radio group is the leading organization in digital Amateur Radio.)

#### Will Swatch Internet Time catch on?

The biggest news organization in the world, CNN has already adopted it on its web page. They are time stamping news stories in Swatch Internet Time – @648 – for instance. (Check: <a href="http://www.cnn.com">http://www.cnn.com</a>.) They also have a link from the top of their home page to a "world-time" converter that includes a "shockwave" global time zone map and a way to change Internet time into local time at various major cities through the world.